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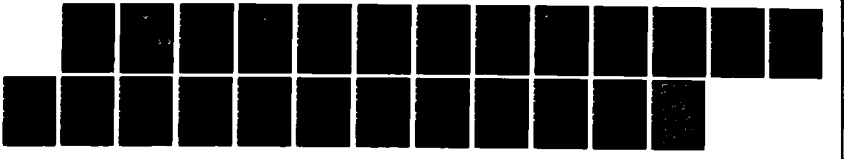

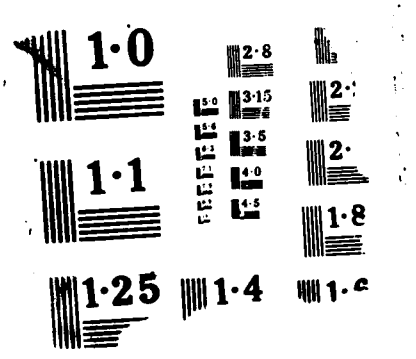
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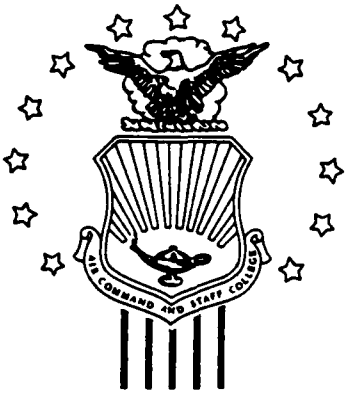

AIR COMMAND AND STAFF COLLEGE

STUDENT REPORT

IMPROVING THE OPERATOR SIDE OF THE OPERATIONAL INTELLIGENCE PROCESS

MAJOR RICHARD C. BARCLAY 88-0195

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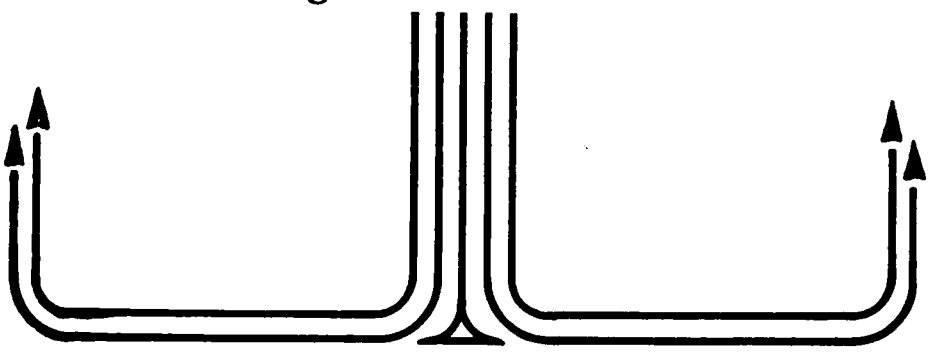

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REPORT NUMBER 88-0195

TITLE IMPROVING THE OPERATOR SIDE OF THE OPERATIONAL INTELLIGENCE PROCESS

AUTHOR(S) MAJOR RICHARD C. BARCLAY, USAF

FACULTY ADVISOR LT COL EDWARD ELLIS, 3823STUS/CC

SPONSOR LT COL DENNIS HAYNES, HQ USAF/XOORS

Submitted to the faculty in partial fulfillment of requirements for graduation.

AIR COMMAND AND STAFF COLLEGE
AIR UNIVERSITY
MAXWELL AFB, AL 36112

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION / AVAILABILITY OF REPORT STATEMENT "A" Approved for public release; Distribution is unlimited.
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) 88-0195	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION ACSC/EDC 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
6c. ADDRESS (City, State, and ZIP Code) Maxwell AFB AL 36112-5542	7b. ADDRESS (City, State, and ZIP Code)
8a. NAME OF FUNDING / SPONSORING ORGANIZATION 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO / WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
IMPROVING THE OPERATOR SIDE OF THE OPERATIONAL INTELLIGENCE PROCESS

12. PERSONAL AUTHOR(S)
Barclay, Richard C., Major, USAF

13a. TYPE OF REPORT	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
		1988 April	21

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

Timely and accurate operational intelligence is critical to all Air Force combat operations. The key to timely receipt of accurate intelligence is properly stated, validated, and prioritized requirements. Air Force operators and commanders need a better understanding of intelligence to enable them to play an active role in development of those requirements. This article explains the intelligence cycle, describes the importance of the operations/intelligence interface, and recommends some ways to improve operations' awareness. Only with a truly interactive operations/intelligence interface, can we expect to take full advantage of the intelligence community's capabilities to support us.

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☐ UNCLASSIFIED/UNLIMITED ☒ SAME AS RPT. ☐ DTIC USERS	UNCLASSIFIED
22a NAME OF RESPONSIBLE INDIVIDUAL ACSC/EDC Maxwell AFB AL 36112-5542	22b TELEPHONE (Include Area Code) (205) 293-2867 22c OFFICE SYMBOL

DD Form 1473, JUN 86 *Previous editions are obsolete.*

SECURITY CLASSIFICATION OF THIS PAGE
UNCLASSIFIED

PREFACE

The importance of timely and accurate operational intelligence to success in battle has been established throughout history. Today we spend a great deal of money and manpower to improve our intelligence collection and dissemination systems. However, if some more fundamental training and exercise actions for Air Force operators are not coupled to the systems developments, we risk undermining these excellent, albeit expensive, improvements.

Well articulated operational intelligence requirements are the key to making these capabilities work for any user of operational intelligence. Operational intelligence requirements should be the product of a cooperative effort on the part of both the intelligence officer and operator. This capitalizes on the operator's knowledge of mission requirements and the intelligence officer's knowledge of the intelligence community's capabilities to support those requirements.

We need to provide our commanders and operators a better idea of what intelligence is all about and what their role in the process is. To do this we must develop training and education programs which teach the intelligence cycle, to show how the process works and emphasize the importance of requirements in that process. We must then practice as we expect to perform in wartime by making sure our exercises include events to test the operations/intelligence interface.

These actions will improve operations understanding of intelligence and enhance the common ground for communication between the two. The result will be a more effective operations/intelligence interface, better operational intelligence requirements, and overall improved intelligence support to operations.

Subject to clearance, this manuscript will be submitted to the Air Power Journal for consideration.

ABOUT THE AUTHOR

Major Richard C. Barclay was commissioned upon graduation from the Air Force Academy in 1974, and was awarded a Bachelor of Science in Astronautical Engineering. Upon completion of Undergraduate Pilot Training, his assignments included flying WC-130E/H aircraft with the 54th Weather Reconnaissance Squadron at Andersen AFB, Guam, C-130E's with the 21st Tactical Airlift Squadron at Clark AB, Philippines, and C-130A's with the 4953rd Test Squadron at Wright-Patterson AFB, Ohio. In 1983 Major Barclay was a distinguished graduate from the Air Force Institute of Technology, earning a Masters Degree in Space Operations. His thesis, entitled "A Computer Model for Evaluation of Launch Vehicle and Target Tracking Error Assignments for Direct Ascent, Deep Space ASAT Systems," was presented and published in the proceedings of the Winter Simulation Conference, cosponsored by several professional organizations. His most recent assignment was as Chief, TENCAP Division, Deputy Chief of Staff/Operations, Headquarters Air Force Space Command. Major Barclay is a graduate of Squadron Officer School (in residence), Air Command and Staff College (by correspondence), and the Defense Intelligence College's Intelligence Collection Management Course (in residence).

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REPORT NUMBER 88-0195

AUTHOR(S) MAJOR RICHARD C. BARCLAY, USAF

TITLE IMPROVING THE OPERATOR SIDE OF THE OPERATIONAL INTELLIGENCE PROCESS

I. Purpose: To establish the importance and recommend ways of providing Air Force operators more information about intelligence. This will permit them to take a more active role in the operations/intelligence interface, especially in defining operational information requirements to be satisfied by intelligence.

II. Problem: While the need for operational intelligence is well recognized, many commanders and operators do not understand that the key to good, tailored operational intelligence is properly stated requirements which are a product of a solid working relationship with their intelligence officer.

III. Discussion: Well stated requirements are the key to good operational intelligence support. These can best be developed through a cooperative and interactive effort between operations and intelligence, capitalizing on operations knowledge of the operational mission requirements and intelligence knowledge of the intelligence community's capabilities to support the mission. This requires an effective operations/intelligence interface. This is possible only with a good understanding on the part of both operations and intelligence

of one another's roles and solid common ground for communication. This article concentrates on the operator side of that equation. Any Air Force decision maker (from theater or air component commander to individual flight crew), who has a need for information about adversaries that only the intelligence community can provide, should understand the basics of the intelligence cycle. This would take some of the mystery out how intelligence gets some of its information and show the overriding importance of stated requirements to intelligence support. These same operators (commanders to flight crews) should be exposed to some of the basic capabilities of the intelligence community to support their needs. This would enhance the common ground for communication between operator and intelligence officer, and plant the thoughts which might later catalyze intelligence requirements. As with all important wartime skills, these too must be practiced in exercises to reinforce their importance and ensure we are prepared to perform in wartime.

IV. Conclusions and Recommendations: All Air Force operator training, from technical training, to recurring crew training, to commander's orientaton courses should be examined for feasibility of including basic information about the intelligence processes and capabilities, emphasizing the important role of the operator in requirements generation. Professional Military Education has already begun to evolve in this direction. Exercise planners should include events which stress the operations/intelligence interface and drive new intelligence requirements to be developed in the exercise scenario.

IMPROVING THE OPERATOR SIDE OF THE OPERATIONAL INTELLIGENCE PROCESS

INTRODUCTION

> What enables the wise sovereign and the good general to strike and conquer, and achieve things beyond the reach of ordinary men, is foreknowledge. Now this foreknowledge cannot be elicited from spirits; it cannot be obtained inductively from experience, nor by any deductive calculation. [1]
>
> - Sun-Tzu

From the time of Sun-Tzu to the present, the value of intelligence to the combat commander has been demonstrated time and again. AFM 1-1 states, "the effective and efficient use of aerospace forces depends greatly upon accurate and timely intelligence assessment." [2] Sun-Tzu also recognized that good intelligence is not the product of divine inspiration, but is obtained only by proper planning and use of capabilities dedicated to intelligence gathering. The 1986 Report of the Secretary of Defense to Congress discusses development and fielding of new advances in collection and dissemination systems that will make "near-real-time intelligence . . . a reality." [3] But with all this effort and expense put toward new intelligence collection and dissemination capabilities in recent years, are we really making the most of these marvels of technology? In spite of this great investment, breakdowns in communication and lack of a good operations/intelligence interface can still result in inappropriate or missed collection and reporting opportunities, i.e. ineffective operational intelligence. We need to provide commanders and operators a better idea of what intelligence is all about. It is essential for them to understand that their participation in the

development of information requirements is the key to receiving accurate and timely operational intelligence. That is what permits the intelligence community to effectively focus collectors and disseminate the product to the right user at the right time.

It is a simple matter to appreciate the importance of good intelligence when it comes time to go toe to toe with the enemy. However, this does not happen by chance nor is it strictly "Intel's" job. The commander/operator has an important role in specifying and prioritizing what information is required to accomplish the operational mission. It is tempting, due to the classified nature of the intelligence business (the Green Door syndrome), to sit back and expect to be provided the intelligence of most interest, based on the assumption that the intelligence officer is getting everything available. This is chancy at best. Just as we would not want our planners to develop war plans or Program Objective Memorandum inputs devoid of operations input, operational intelligence requirements must be developed interactively with the commander/operator. This capitalizes on the operator's knowledge of the mission requirements and the intelligence officer's knowledge of the resources which can be brought to bear on the unit's intelligence requirements. This article describes some basics about the classic intelligence cycle to establish the importance of information requirements. It then discusses the operations/intelligence interface to point out the pitfalls of a lack of good interaction. Finally, it recommends actions to improve the interface and thereby get the most out of the operational intelligence product.

The term "operator" as used in this article refers to an Air Force decision maker at any level from theater or air component commander to the individual flight crew. Each may have requirements for information about an adversary that only the intelligence community can provide, and without which they cannot perform their operational mission as effectively or safely. For the purpose of this article, this is "operational intelligence." These Air Force operators should therefore know something about how to get that information and how they can, and should, be involved in developing requests for it.

THE INTELLIGENCE CYCLE

> We must recognize that every field commander will require timely, accurate, relevant, readily usable intelligence-derived information. Our goal will be to satisfy this requirement with a vast array of collection resources and a centralized management and coordination system of the entire intelligence cycle, from collection through dissemination. [4]
>
> - Lt Gen Leonard Perroots
> Dir, Defense Intelligence Agency

The real key to understanding the intelligence process lies in what the intelligence community calls the "Intelligence Cycle." This is a series of steps which must be accomplished for any user to receive needed intelligence. The basic process begins with a user who has a need for some information about an adversary's capabilities, actions, or intentions. When this information need is expressed to the appropriate element of the intelligence community as an intelligence requirement, one or more collection capabilities are used to collect data which will be processed, evaluated, and analyzed. The result of the analysis is a product which is then disseminated to the original requester. Although there are variations, the basic steps are Planning and Direction, Collection, Processing, Production, and Dissemination. [5]

Planning and direction involves "identification of the kinds of data needed and assignment to the appropriate agency for collection of said data." [6] At the unit level, this may entail searching existing data, both in house and elsewhere, to ensure the required information is not already available. If the data cannot be found, one or more intelligence requirements will be forwarded, through the proper approval chain, to the appropriate disciplines of the intelligence community for "collection of said data."

Collection is the process of focusing the collection assets of the intelligence community against the existing prioritized requirements. There has been a real revolution in the nature of

the collectors themselves over the last generation. Consider that until World War II collection was done almost exclusively by human observation, whether by Sun-Tzu's "spies", recon patrols, or aerial observation. [7] Today these collectors run the gamut from human beings to some very advanced technical sensors on any number of different platforms. As was mentioned earlier, there has been a great deal of effort and expense in recent years toward developing new collection capabilities. Even with this revolution in technology, collection assets remain resource limited, and resource allocation decisions must be made based on prioritized, validated requirements. It is these intelligence requirements that "focus" the collectors against the most important information needs.

Processing takes place when the data must be converted from its raw form to something an analyst can use. Examples are the decoding of coded material, translating of foreign languages, and interpretation of photographic materials. [8] Once the data is transformed, it can be used by analysts who will create a product to respond to the intelligence requirement.

Production requires a trained analyst to evaluate, synthesize, and interpret the data to deduce its meaning relative to the user's request. [9] In this analysis process trained specialists correlate data from a host of sources to develop conclusions/ estimates to answer the user's need. This is the real art of intelligence where they tell us what all the beeps, squeaks, leaks, and looks really mean. The properly stated and validated requirement tells the analysts what the user is interested in and enables them to concentrate their efforts where it is most needed. The analysts can then produce a written record of their conclusions/estimates tailored to that customer's stated need.

All previous efforts go for naught if the product is not put in the hands of the right person at the right time via dissemination. The emphasis here is on both the "right person" and the "right time." Operational intelligence is especially perishable information, and getting it at the wrong time may negatively impact the user by diverting attention from more important issues of the moment. This product-to-user connection is another area where considerable efforts are being made to improve the timeliness of

the product.[10] Once again, the only way for the elements of the intelligence community that produce the report to know who needs it, is by referencing the stated requirement.

By now it is obvious that the key cog in the intelligence cycle, the one on which intelligence planning and direction is based, and from which all other activities flow, is the original intelligence requirement. It is the single connection between any unit and the intelligence community. It enables the intelligence community to make the resource allocation decisions about what information to collect. This provides the guidance to tailor the analysis, and ensure dissemination of the appropriate products to the correct user at the proper time. Articulation of operational intelligence requirements requires active involvement on the part of those who know the mission requirements best -- the operators.

OPERATIONS/INTELLIGENCE INTERFACE

> One reason the capture of the Achille Lauro hijackers and the attacks on Libya were conducted with such success is the teamwork that is increasingly developing between operations and intelligence. This finely meshed, vital relationship will have to be fostered by a redoubled commitment to cooperation and mutual support if we are to succeed.[11]
>
> - Lt Gen Leonard Perroots

A healthy operations/intelligence interface takes advantage of the expertise of both the operator and the intelligence officer. The operator is best qualified to determine what he needs to know about his adversary based on the mission. The intelligence officer is best qualified to translate those operational needs into intelligence requirements and interpret various products received in response to those needs. This process should be interactive and continuous in nature. It has, however, been known to be less than successful.

The pitfalls most often observed are best characterized by a quote Ronald Smetek used to open an article entitled "Tactical Intelligence: Green Door to Battlefield" in the January 1984 edition

of the Journal of Electronic Defense:

> Operations Officer: "Intelligence never gives me what I need! What you do provide is either too late or not pertinent. The good material stays behind the Green Door!"
>
> Intelligence Officer: "Operations never tells me what they really want or when they want it! How can I support you when I don't know what you need? And I'm not keeping anything behind the Green Door - trust me!" [12]

This exchange is characteristic of a lack of trust and communication. Operations may believe that intelligence is so technical and "spooky" that it can only be addressed by a trained intelligence officer. In other words, only intel officers understand the nuances of the intelligence community and its security compartments Therefore, it's their job and they'll let us know if they get any intelligence of interest. Besides, when did we last hear anything of real interest from them. But, as the above exchange indicates, this is a two edged sword. Again, the real art of intelligence is to read our adversary's mind, not ours.

Lt Col G. Murphy Donovan is an intelligence officer who wrote in the Air University Review:

> For the most part, intelligence managers alone play the requirements "game." In practice, they are often unaware of the needs of policy, yet the requirements flow continuously. More frequently than they would care to admit, intelligence personnel are kept in the dark by hidden agendas, security considerations, or the more understandable discontinuities of changing administrations. [13]

While not present in all cases, it is clear that an unhealthy operations/intelligence interface is detrimental to the unit effectiveness. It puts intelligence in the position of basing requirements on their *perception* of what operations needs, rather than the actual needs. It can, at one extreme result in an excess of superfluous data as intelligence tries to anticipate every possibility, real or imagined. At the other extreme it may

result in no data at all. This is because the real "meat" of a requirement justification for operational intelligence is the rationale of its operational necessity. There are operational nuances which can best be expressed by the combined efforts of operator and intelligence officer to ensure the intelligence community truly appreciates that operational necessity. The intelligence community must truly understand the operational necessity when it comes time to make their resource allocation decisions. In any case, the lack of good interaction between operations and intelligence brings results that are detrimental and unacceptable.

The Air Force has recognized this fact and Air Force Regulation 200-1 requires commanders to articulate their requirements to their intelligence officer. Paragraph 5c(4) tasks all users of USAF intelligence to "determine their requirements and priorities . . . and apprise USAF intelligence of these requirements and the extent to which they are satisfied." [14] This is the essential feedback that steers the intelligence community to gather more data or redirect collection to achieve satisfaction of the requirement. The next paragraph states, "users will regularly *inform* intelligence personnel of key . . . operations . . . actions that may impact . . . required products and services." [15] The Air Force leadership has clearly recognized the need for healthy and continuous operations/intelligence dialog, but, as with most things of importance, other actions must take place to ensure compliance with the intention of this regulation.

IMPROVING THE OPERATIONS/INTELLIGENCE INTERFACE

> Success at the operational level of war will require a close relationship between the commander and his operations and intelligence officers. The commander, for his part, must learn to use intelligence, to trust his intelligence officer. . . . The intelligence officer, in turn, must work to earn the trust of the commander. . . . Working closely with his operations counterpart, he must understand what the commander intends. . . . Nothing less will do at the operational level of war. [16]

- James U. Dixon
Student, National War
College

The key to improving the operations/intelligence interface is improved understanding to create more common ground for communication between the players. This can be achieved through the inclusion of intelligence subject matter in operator training and exercises. Each must understand the basic roles the other plays in accomplishing the mission, and the interdependence and cooperation that must exist for success. The December 1985 edition of Combat Crew contains an article entitled "Enhancing Intelligence Support" which suggests providing orientation flights or weapon system trainer missions to familiarize intelligence officers with the mission they support.[17] The other side of that two edged sword would indicate that operators need to understand more about intelligence than they can learn from periodic threat briefings, a pre-mission briefing, or recurring silhouette training.

Anyone who may have a unique need for intelligence information, from theater or air component commanders to individual aircrews, should understand the basics of the intelligence cycle to a level of detail approximating that explained in this article. This would take some of the mystery out of the way intelligence gets some of its information and show that it is not all done with mirrors, but is a logical, albeit somewhat bureaucratic, process in which the onus is on the users to make it work for them. In addition, it would provide the vehicle to explain why, in spite of the fact that operators have no role in the majority of the process (collection thru dissemination), their role in defining requirements is critical to the support they receive.

They should also have a very basic appreciation for the kind of collection capabilities available. This certainly need not include classified technical details of specific collectors. However, understanding at a generic level that certain signals can be collected and are indicative of a certain threat, or a type of imagery can identify characteristics we need to know, may catalyze a new requirement in that operator's mind. This would solidify their requirements generation role by enhancing that common

ground for communication with their intelligence officer.

We assume too much if we expect these things to fall in place when we are at war. As with all other combat capabilities, we must train and exercise in peace as we expect to fight in war. Therefore these items should be included in appropriate training and education for operational personnel. Appropriate training vehicles might vary anywhere from formal technical training, to recurring crew training, to commander's orientation courses. (One of the research fellows at Air University's Airpower Research Institute is currently studying the operations/intelligence interface. He will be addressing revisions to Professional Military Education courses with an eye toward what the operator needs to know about intelligence, in recognition of this need.) Exercise personnel should also make an effort to create more situations in our exercises that require real time interaction of operator and intelligence officer to solve a battlefield problem. We may then better prepare our commanders, operators, and intelligence officers to trust one another and feel confident that good communication exists on a day to day basis. This should result in good, solid requirements, and give us the best chance of getting what we need in crisis/war when it is most important. Only then can we be confident we have done everything possible to make the most effective use of the intelligence capabilities available to support the operational mission.

By pointing out the need for direct operator involvement in the intelligence process at the critical stage of requirements generation, we can begin to improve the operations/intelligence interaction. Then, with better and more realistic training and exercises we can practice the way we must-- before push really comes to shove. Ignoring these fundamental training actions risks undermining all those technical improvements to collectors and methods of processing and dissemination. Without the right requirements, all the improvements in the world will have only a minimal effect, and the investment in those improvements will be diluted. Just as one weak link weakens the whole chain, all elements of the intelligence cycle must work in concert for the right products to get in the right hands at the right time. The end result is better stated requirements, more effective

collection, processing, dissemination, and eventually better operational intelligence. Better operational intelligence could well make the difference in today's complex, highly mobile battlefield.

These recommendations encompass only one aspect of the operational intelligence process, but their relative simplicity and the overriding importance of requirements to the process, make it even more important that we put programs in place now So the next time we are tempted to criticize our intelligence officers for not providing sufficient support, let us first ask ourselves, have we, as operators, done all we can to work with them to ensure our operational intelligence requirements are properly stated. If the answer is "no," we should take a hard look at the operations/ intelligence interface, training, and exercises to make sure our operators are equipped to perform their role in the operational intelligence process.

FOOTNOTES

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